

AMENDMENTSIn the Claims

Please amend the claims as follows:

1-259. (Cancelled)

✓ 1. 260. (currently amended) An in vivo method of delivering a pharmaceutical composition to a target polynucleotide comprising administering to the airways of a subject said pharmaceutical composition of a respirable or inhalable particle size of about 0.5 μ m to 500 μ m in size comprising [a nucleic acid that comprises] at least one oligonucleotide effective to alleviate hyper-responsiveness to adenosine or increased levels of adenosine, or to alleviate bronchoconstriction, asthma, or lung allergy, wherein the oligonucleotide is 4 to 60 nucleotides long and comprises [10%] 15% or less adenosine, wherein said oligonucleotide is antisense to a gene encoding an adenosine receptor associated with bronchoconstriction, and selected from the group consisting of genes encoding an adenosine A₁ receptor, adenosine_{2b} receptor or adenosine A₃ receptor.

Claim 261 (Cancelled).

2. 262. (previously presented) The method of claim 260, wherein the oligonucleotide comprises [5%] 10% or less adenosine.

3. 263. (previously presented) The method of claim 262, wherein the oligonucleotide comprises 3% or less adenosine.

4. 264. (previously presented) The method of claim 263, wherein the oligonucleotide is adenosine-free.

5. 265. (previously presented) The method of claim 260, wherein the oligonucleotide is 9

to 51 nucleotides long.

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266. (previously presented) The method of claim 265, wherein the oligonucleotide is 18 or 21 nucleotides long.

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267. (previously presented) The method of claim 260, wherein the pharmaceutical composition is administered by inhalation directly to the airway or lung of the subject.

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268. (previously presented) The method of claim 260, wherein the oligonucleotide is antisense to the initiation codon, the coding region or the 5' or 3' intron-exon junction of a gene encoding a [protein] an adenosine receptor associated with bronchoconstriction, and selected from the group consisting of genes encoding an adenosine A₁ receptor, adenosine_{2b} receptor or adenosine A₃ receptor and it is associated with hyper-responsiveness to adenosine, hyper-responsiveness to increased levels of adenosine, hyper-responsiveness to increased levels of an adenosine receptor, bronchoconstriction, asthma, lung allergy, or lung inflammation, or is antisense to the corresponding mRNA thereof.

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269. (previously presented) The method of claim 260, wherein the particle size is about 0.5 μm to about 10 μm in size.

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270. (previously presented) The method of claim 260, wherein the particle size is 10 μm to 500 μm in size.

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271. (previously presented) The method of claim 260, wherein the pharmaceutical composition further comprises a surfactant.

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272. (currently amended) The method of claim 260, wherein the hyper-responsiveness to adenosine, hyper-responsiveness to increased levels of adenosine, hyper-responsiveness to increased levels of an adenosine receptor, [bronchoconstriction] bronchoconstriction, asthma, lung allergy, or lung inflammation is associated with allergy, chronic obstructive pulmonary

disease, asthma, acute respiratory distress syndrome, respiratory distress syndrome, or a side effect of adenosine administration.

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273. (previously presented) The method of claim 260, wherein the nucleic acid is administered in an amount of about 0.005 to about 150 mg/kg body weight.

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274. (previously presented) The method of claim 260, wherein said method is a prophylactic or therapeutic method.

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275. (previously presented) The method of claim 260, wherein the oligonucleotide is antisense to the initiation codon, the coding region or the 5' or 3' intron-exon junctions of a gene encoding an adenosine A₁ receptor, adenosine A_{2b} receptor or adenosine A₃ receptor.

✓ 16
276. (currently amended) An in vivo method of delivering a pharmaceutical composition to a target polynucleotide comprising administering to the airways of a subject said pharmaceutical composition of a respirable or inhalable particle size of about 0.5 µm to 500 µm in size comprising [a nucleic acid that comprises] at least one oligonucleotide, wherein the oligonucleotide comprises the sequence of SEQ ID NO: 1, SEQ ID NO: 3, SEQ ID NO: 5 or SEQ ID NO: 7 to SEQ ID NO: 966, or SEQ ID NO: 1, SEQ ID NO: 3, SEQ ID NO: 5 or SEQ ID NO: 7 to SEQ ID NO: 966, wherein at least one mononucleotide is linked or modified by one or more of phosphorothioate, phosphorodithioate, methylphosphonate, phosphoramidate, boranophosphate, phosphotriester, formacetal, 2'-O-methyl, thioformacetal, 5'-thioether, carbonate, 5'-N-carbamate, sulfate, sulfonate, sulfamate, sulfonamide, sulfone, sulfite, sulfoxide, sulfide, hydroxylamine, methylene (methylimino) and methyleneoxy (methylimino), terminal 1,3-propanediol, terminal dodecanol, 2'-O-methoxyethyl, C-5-propynyl pyrimidine, C-5 methyl cytidine, C-5 ethynyl pyrimidine, 2' propoxy, C-18 amine, N3'-P5 phosphoramidates, 3'-alkylamino, 2'-fluoro pyrimidine, 5-fluoro pyrimidine, 5-iodo pyrimidine, 5-bromo pyrimidine, 2'-borano, C-5 hexynyl pyrimidine, 2'-O-(2-methoxy)ethyl, 2'-O-aminopropyl, 5-(phenylethyl) or a peptide nucleic acid interbase linkages or conjugated to a polyethylene glycol, cholesterol, cholesteryl, dehydroepiandrosterone, dehydroepiandrosterone sulfate, dehydroepiandrosterone

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✓ sulfatide, ubiquinone, dolichol, poly L-lysine, sulfatidic acid or a fatty acid.
